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| Fish & Richardson | | DINH, TUAN T | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,038

Applicant(s)

HOHN ET AL

Examiner

Tuan T. Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 27-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 27-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 32 is objected to because of the following informalities:

Claim 32, line 2, it is confuse because the applicant recited the term "can be" is render claimed, and that limitation is defined no positive structure.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berger (U.S. Patent 4,030,948) in view of Prior Art of figure 2 (hereafter PA).

Regarding claims 1-7, 27, and 33, Berger discloses an electronic component (10) having a body (12, see figure 1, column 3, line 6), the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, and in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence to the coating, see column 3, lines 38-67, column 4, lines 14-66, and column

5, line 2, column 6, lines 12), the coating consists essentially of siloxane or polysiloxane, see column 5, line 2, and column 6, line 12.

Berger does not explicitly disclose the component being an electro-optical or a LED component having a plastic body/housing.

PA shows a LED component (1), which is an electro-optical component as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component being a LED having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight, and low cost for manufacturing.

Regarding claims 28 and 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, which is unsoldered component (figure 1, column 3, lines 3-4), the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence to the coating, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12).

Berger does not explicitly disclose the component being an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

Regarding claims 29 and 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34) prior to soldering of the component (10), the coating preventing solder adherence to the coating, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12).

Berger does not explicitly disclose the component, which is an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

Regarding claims 30, 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the

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body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12), the component is a part from any support structure (i.e. the component is not connected to substrate or board, see figure 1).

Berger does not explicitly disclose the component, which is an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

Regarding claims 31, 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12), wherein the coating has an end, and the coating ends at the component (the coating 34 has an end at a bottom surface 16 of the body 12, see figure 1).

Berger does not explicitly disclose the component, which is an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

4. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berger in view of PA, and further in view of Schmid (U.S. Patent 6,006,512).

Regarding claim 32, Berger and PA do not explicitly show the coating applied to the plastic housing from a hydrous solution.

Schmid teaches a protective coating (16) applying on a housing from a hydrous solution (10), see figures 1-4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a coating made from hydrous solution as taught by Schmid employed in the component of Berger and PA in order to provide less time and low cost for manufacture.

Response to Arguments

5. Applicant's arguments filed 01/05/06 have been fully considered but they are not persuasive.

Applicant argues:

(a) Berger does not disclose "an anti solder coating preventing solder adherence to the coating" and does not describe the problem of solder splash nor does indicate whether or not the solder adheres to the coating.

Examiner disagrees because in figures 1-2 of the Berger reference, the coating material (34) is adhesive tenaciously to the surface of the device (the body of the device (10) made of crystal semiconductor material, see column 3, lines 6-7) and high resistances that prevent and protect the surface of the body of the device, column 3, lines 58-61.

Applicant recited "at least partially covered by an anti-solder coating (claims 1, 28-31, line 3) that prevent solder adheres to the coating, consists essentially of (the terminology equal to comprising) siloxane, polysiloxane, or the composition of siloxane, see claims 2-6. Since the applicant claimed the anti-solder coating having a function to prevent solder adherence. So the applicant clearly claimed the functional or the properties of the coating.

Berger clearly discloses the coating (34) made of silicone, which is a siloxane or polysiloxane applied/coated on the surface of the device in order to provide high resistance and prevent moisture. Berger discloses the same material of the coating even though the reference lack to use to prevent the solder adherence, but it is well known or

conventional that with the same coating material coated on at least a partially on the body of the device that would have the same functions/properties as to prevent the solder adherence on it.

Therefore, the examiner believes the combination of Berger in view of the PA is proper.

(b) Berger's coating does not consisting essentially of siloxane.

Examiner disagrees. First the term "consisting essentially of" is equivalent to the term "comprising" and not the same term "consisting of". Second, in the Berger reference, the coating is made by silicone, which is a larger group of siloxane polymers (see the attached copy paper of the Condense Chemical Dictionary attaching in the previous Office actions).

Therefore, the examiner does believe Berger disclosed the coating made by siloxane.

(c) Schmid does not disclose a hydrous solution to apply the anti-coating.

Examiner disagrees. First the term "can be applied" or "can be" is render claimed, and that limitation is defined no positive structure. Second, Schmid teaches a technique of coating (16) to protect at least partially portion of housing by using a hydrous solution (10) as shown in figures 1-4. The technique using the hydrous solution to coat the housing is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art to use the technique of Schmid employed to the device of Berger and PA in order to reduce time and less cost for manufacture.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Dinh
March 13, 2006.



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